REMARKS/ARGUMENTS

The Office Action mailed May 17, 2006, has been received and reviewed. Claims 1 through 9 and 12 through 19 are currently pending in the application. Claims 1 through 9 and 12 through 19 stand rejected. Applicant has amended no claims, and respectfully request reconsideration of the application as presented herein.

35 U.S.C. § 103(a) Obviousness Rejections

Obviousness Rejection Based on U.S. Patent No. 5,812,789 to Diaz et al. in view of U.S. Patent No. 6,040,845 to Melo et al.

Claims 1 through 3, 5 through 9 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Diaz et al. (U.S. Patent No. 5,812,789) in view of Melo et al. (U.S. Patent No. 6,040,845). Applicant respectfully traverses this rejection, as hereinafter set forth.

M.P.E.P. 706.02(j) sets forth the standard for a Section 103(a) rejection:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, **the prior art reference (or references when combined) must teach or suggest all the claim limitations.** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (Emphasis added).

The 35 U.S.C. § 103(a) obviousness rejections of claims 1 through 3, 5 through 9 and 12 are improper because the elements for a prima facie case of obviousness are not met. Specifically, the rejection fails to meet the criterion that the prior art reference must teach or suggest all the claims limitations.

Regarding independent claim 1 and claims 2, 3, 5 through 9 and 12 depending therefrom, Applicants submit that independent claim 1 includes claim limitations not taught or suggested in the cited references.

Applicants' independent claim 1, as presently presented, recites:

> 1. A method for compressing video data in a computer system comprising:
> receiving a current video frame at a dedicated video input of a core logic chip in the computer system directly from a video source originating the video frame, the computer system including the core logic chip for directly coupling a processor to a system memory and for coupling the processor and the system memory to a system bus;
> *computing at the core logic chip a difference frame from the current video frame and a previous video frame as the current video frame streams into the dedicated video input of the core logic chip,* ***the previous video frame being received at the core logic chip as a previous current video frame and retained therein,*** the difference frame including computing the difference frame in the core logic chip within the computer system, wherein the core logic chip is a north bridge chip;
> storing the difference frame directly from the core logic chip to the system memory in the computer system via a dedicated memory interface therebetween; and
> the processor retrieving the difference frame directly from the system memory via the core logic chip using a dedicated processor interface therebetween to complete compression of the video data. (Emphasis added.)

Applicants respectfully assert that neither the Diaz reference nor the Milo reference, either individually or in any proper combination, teach or suggest Applicants' invention as presently claimed in independent claim 1.

The Office Action alleges, "computing at the core logic chip a difference frame from the current video frame and a previous video frame as the current video frame streams into the dedicated video input of the core logic chip, *the previous video frame being* ***received at the core logic chip*** *as a previous current video frame* ***and retained therein,*** the difference frame including computing the difference frame in the core logic chip within the computer system is met by the decoder/encoder 45 ... ([Diaz] Fig. 2, col. 7, line 5 to col. 8, line 62)." (Office Action, p. 3; emphasis added). Applicants respectfully disagree that the Diaz reference teaches or suggests any such thing.

In contrast to Applicants' invention as presently claimed, the Diaz reference actually teaches or suggests, "***[t]hese previous*** and /or future ***images need to be stored*** then used to decode the current image. This is one of the reasons the ***decoder/encoder 45 requires access to the memory*** ... ." (Diaz, col. 7, lines 44-47; emphasis added). The Diaz reference stores the

previous image(s) in the memory and then retrieves the previous images from the memory to the "core logic chip" to be used in processing the images. The Diaz reference explicitly recites storage of previous image data being accomplished in the memory external to the "core logic chip."

The Office Action cites the Milo reference for teaching or suggesting "the graphics accelerator can be considered an AGP compliant master, the north bridge, and specifically, the memory controller or core logic within the north bridge can be partially considered as an AGP compliant target". (Office Action, p. 4).

Regardless of whether the Milo reference so teaches or suggests as alleged, neither the Diaz reference nor the Milo reference teaches or suggests Applicants' claimed invention including "*computing at the core logic chip a difference frame from the current video frame and a previous video frame as the current video frame streams into the dedicated video input of the core logic chip,* ***the previous video frame being received at the core logic chip as a previous current video frame and retained therein***".

Therefore, since neither the Diaz reference nor the Milo reference teach or suggest Applicants' claimed invention including "***the previous video frame being received at the core logic chip as a previous current video frame and retained therein***" these references, either individually or in any proper combination, cannot render obvious, under 35 U.S.C. §103, Applicants' invention as presently claimed in independent claim 1. Accordingly, Applicants respectfully request the rejection of presently presented independent claim 1 be withdrawn.

The nonobviousness of independent claim 1 precludes a rejection of claims 2, 3, 5-9, and 12 which depend therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See* In re Fine, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, the Applicants request that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejection to independent claim 1 and claims 2, 3, 5 through 9 and 12 which depend therefrom.

Obviousness Rejection Based on U.S. Patent No. 5,812,789 to Diaz et al. in view of U.S. Patent No. 6,040,845 to Melo et al., and further in view of U.S. Patent No. 4,546,383 to Abramatic et al.

Claims 4 and 13 through 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Diaz et al. (U.S. Patent No. 5,812,789) in view of Melo et al. (U.S. Patent No. 6,040,845), and further in view of Abramatic et al. (U.S. Patent No. 4,546,383). Applicant respectfully traverses this rejection, as hereinafter set forth.

M.P.E.P. 706.02(j) sets forth the standard for a Section 103(a) rejection:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, **the prior art reference (or references when combined) must teach or suggest all the claim limitations.** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (Emphasis added).

Claim 4

The nonobviousness of independent claim 1 precludes a rejection of claim 4 which depends therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See* In re Fine, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, the Applicants request that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejection to independent claim 1 and claim 4 which depends therefrom.

Claim 13-19

The 35 U.S.C. § 103(a) obviousness rejection of claims 13-19 are improper because the elements for a prima facie case of obviousness are not met. Specifically, the rejection fails to meet the criterion that the prior art reference must teach or suggest all the claims limitations.

Regarding independent claim 13 and claims 14-19 depending therefrom, Applicants submit that independent claim 13 includes claim limitations not taught or suggested in the cited references.

Applicants' independent claim 13, as presently presented, recites:

> 13. A method for compressing video data in a computer system, comprising:
> receiving a current video frame at a dedicated video input of a core logic chip in the computer system directly from a video source originating the video frame, the computer system including the core logic chip for directly coupling a processor to a system memory and for coupling the processor and the system memory to a system bus;
> *computing at the core logic chip a difference frame from the current video frame and a previous video frame as the current video frame streams into the dedicated video input of the core logic chip,* ***the previous video frame being received at the core logic chip as a previous current video frame and retained therein,*** the difference frame including computing an exclusive-OR between the current video frame and the previous video frame, and wherein computing the difference frame includes computing the difference frame in the core logic chip within the computer system, wherein the core logic chip is a north bridge chip;
> storing the difference frame directly from the core logic chip into the system memory in the computer system via a dedicated memory interface therebetween;
> storing the current video frame directly from the core logic chip into the system memory in the computer system using a dedicated processor interface therebetween;
> the processor retrieving the difference frame directly from the system memory via the core logic chip; and
> compressing the video data using the difference frame to produce compressed video data. (Emphasis added.)

Applicants respectfully assert that neither the Diaz reference nor the Milo reference nor the Abramatic reference, either individually or in any proper combination, teach or suggest Applicants' invention as presently claimed in independent claim 13.

The Office Action alleges, "In considering claim 13, Owen [sic] [Diaz] discloses ... computing at the core logic chip a difference frame from the current video frame and a previous video frame as the current video frame streams into the dedicated video input of the core logic chip, *the previous video frame being* ***received at the core logic chip*** *as a previous current video frame* ***and retained therein*** is met by the decoder/encoder 45 ... ([Diaz] Fig. 2, col. 7, line 5 to col. 8, line 62)." (Office Action, pp. 7-8; emphasis added). Applicants respectfully disagree that the Diaz reference teaches or suggests any such thing.

In contrast to Applicants' invention as presently claimed and as previously stated hereinabove, the Diaz reference actually teaches or suggests, "***[t]hese previous*** and /or future ***images need to be stored*** then used to decode the current image. This is one of the reasons the ***decoder/encoder 45 requires access to the memory*** ... ." (Diaz, col. 7, lines 44-47; emphasis added). The Diaz reference stores the previous image(s) in the memory and then retrieves the previous images from the memory to the "core logic chip" to be used in processing the images. The Diaz reference explicitly recites storage of previous image data being accomplished in the memory external to the "core logic chip."

The Office Action cites the Milo reference for teaching or suggesting "the graphics accelerator can be considered an AGP compliant master, the north bridge, and specifically, the memory controller or core logic within the north bridge can be partially considered as an AGP compliant target". (Office Action, p. 9).

The Office Action cites the Abramatic reference for teaching or suggesting computing and Exclusive-OR between the current video frame and the previous video frame. (Office Action, p. 9).

Regardless of whether the Milo reference and the Abramatic reference teach or suggest as alleged, neither the Diaz reference nor the Milo reference nor the Abramatic reference teaches or suggests Applicants' claimed invention including "*computing at the core logic chip a difference frame from the current video frame and a previous video frame as the current video frame streams into the dedicated video input of the core logic chip,* ***the previous video frame being received at the core logic chip as a previous current video frame and retained therein***".

Therefore, since neither the Diaz reference nor the Milo reference nor the Abramatic reference teach or suggest Applicants' claimed invention including "***the previous video frame being received at the core logic chip as a previous current video frame and retained therein***" these references, either individually or in any proper combination, cannot render obvious, under 35 U.S.C. §103, Applicants' invention as presently claimed in independent claim 13. Accordingly, Applicants respectfully request the rejection of presently presented independent claim 13 be withdrawn.

The nonobviousness of independent claim 13 precludes a rejection of claims 14-19 which depend therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See* In re Fine, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, the Applicants request that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejection to independent claim 13 and claims 14-19 which depend therefrom.

CONCLUSION

Claims 1-9, and 12-19 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicant's undersigned attorney.

Respectfully submitted,

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